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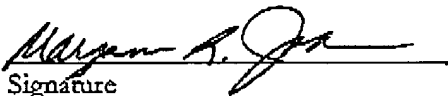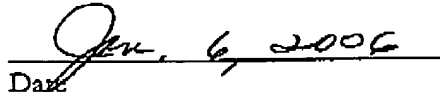| Title of Document Transmitted:	TRANSMITTAL DOCUMENTS AND BRIEF OF APPELLANTS
Applicant:	Scott A. Arvin et al.
Serial No.:	10/657,422
Filed:	September 8, 2003
Group Art Unit:	2672
Title:	OBJECT MANIPULATORS AND FUNCTIONALITY
Our Ref. No.:	G&C 30566.249-US-U1

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By:_____

Name: Jason S. Feldmar
Reg. No.: 39,187

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Scott Anthony Arvin, et al.	Examiner:	Michelle K. Lay
Serial No.:	10/657,422	Group Art Unit:	2672
Filed:	September 8, 2003	Docket:	G&C 30566.249-US-U1
Title:	OBJECT MANIPULATORS AND FUNCTIONALITY		

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By: _____
Name: Jason S. Feldmar

MAIL STOP APPEAL BRIEF - PATENTS
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P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

We are transmitting herewith the attached:

☒ Transmittal sheet, in duplicate, containing a Certificate of Mailing or Transmission under 37 CFR 1.8.
☒ Brief of Appellant(s).
☒ Charge the Fee for the Brief of Appellant(s) in the amount of $500.00 to the Deposit Account.

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By: _____
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G&C 30566.249-US-U1

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JAN 0 6 2006   Due Date: January 6, 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:	)	
	)	
Inventor: Scott A. Arvin et al.	)	Examiner: Michelle K. Lay
	)	
Serial #: 10/657,422	)	Group Art Unit: 2672
	)	
Filed: September 8, 2003	)	Appeal No.: _____
	)	
Title: OBJECT MANIPULATORS AND	)	
FUNCTIONALITY	)	

BRIEF OF APPELLANTS

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In accordance with 37 CFR §41.37, Appellants hereby submit the Appellants' Brief on Appeal from the final rejection in the above-identified application, as set forth in the Office Action dated December 6, 2005.

Please charge the amount of $500 to cover the required fee for filing this Appeal Brief as set forth under 37 CFR §41.37(a)(2) and 37 CFR §41.20(b)(2) to Deposit Account No. 50-0494 of Gates & Cooper LLP.

Also, please charge any additional fees or credit any overpayments to deposit account no. 50-0494 of Gates & Cooper LLP.

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I. REAL PARTY IN INTEREST

The real party in interest is Autodesk, Inc., the assignee of the present application.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences for the above-referenced patent application.

III. STATUS OF CLAIMS

Claims 1, 3-16, 18-31, and 33-45 are pending in the application.

Claims 2, 17, and 32 have been cancelled.

Claims 1, 3-5, 7, 10, 11, 16, 18-20, 22, 25, 26, 31, 33-35, 37, 40, and 41 have been rejected under 35 U.S.C. §102(b) as being anticipated by Wallace et al., U.S. Patent No. 5,861,889 (Wallace).

Prior dependent claims 2, 17, and 32 were rejected under 35 U.S.C. §103(a) as being unpatentable over Wallace in view of Choi, U.S. Patent No. 6,639,606 (Choi).

Claims 6, 8, 9, 21, 23, 24, 36, 38, and 39 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Wallace in view of Felser et al., U.S. Patent No. 6,025,849 (Felser).

Claims 12, 27, and 42 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Wallace in view of Wang, U.S. Patent No. 4,701,752 (Wang).

Claims 13, 28, and 43 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Wallace in view of Argiolas, U.S. Patent No. 5,956,032 (Argiolas).

Claims 14, 29, and 44 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Wallace in view of Young, U.S. Patent No. 5,299,307 (Young).

Claims 15, 30, and 45 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Wallace in view of Frank et al., U.S. Patent No. 5,651,107 (Frank).

All of the above rejections are being appealed.

IV. STATUS OF AMENDMENTS

Claims 1, 16, and 31 were amended subsequent to the final Office Action and incorporated limitations of prior dependent claims 2, 17, and 32. Pursuant to the Advisory Action mailed on October 4, 2005, the amendments were entered into the file wrapper.

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V.   SUMMARY OF CLAIMED SUBJECT MATTER

Independent claims 1, 7, 8, 10, 13-16, 22, 23, 25, 28, 29-31, 37, 38, 40, and 43-45 are generally directed to the use of button object manipulators in a computer graphics drawing program (see paragraph [0005]). In this regard, the graphics objects comprise one or more graphical elements (see paragraph [0007]). Further the button object manipulators in all of the independent claims are made up of a grip (see paragraph [0050] and [0052]-[0056]). Thus, the independent claims provide for a use in a drawing program environment with graphical elements in the drawing program. Each of the independent claims provides for different methods/mechanisms for using the button object manipulators in the drawing program.

Independent claims 1, 16, and 31 provide for using the button object manipulator to directly modify a property of the graphic object (see paragraph [0120]] and FIG. 21). The claims provide that the button object manipulator is activated through a series of specific steps. The steps were set forth in prior dependent claims 2, 17, and 32. The steps provide for placing a cursor controlled by a pointing device over the button object manipulator (see paragraph [0120]). Further, the claims explicitly provide that a button on the pointing device is clicked to activate the button object manipulator without dragging the button object manipulator (see paragraph [0120] and FIG. 21). (Also see paragraph [0055] and FIGS. 6A-6B).

Dependent claims 3, 18, and 33 provide that the property that is modified is a graphically displayed property of the graphic object (i.e., that the button object manipulator is displayed on) (see paragraph [0055] and FIGS. 6A-6B).

Dependent claims 4, 19, and 34 provide that the property of the graphic object identifies a set of object manipulators that are displayed on the graphic object and can be used to manipulate the graphic object. Further, the modification of the property changes the set of object manipulators. (See paragraph [0114]).

Dependent claims 5, 20, and 35 provide that the modification of the property of the graphic object is performed by displaying a discrete number of acceptable property values followed by the selection of one or more of the acceptable property values (see paragraph [0120] and FIG. 21).

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Dependent claims 6, 21, and 36 provide for displaying multiple button object manipulators in geometrically meaningful locations on the graphic object when language based descriptions of properties associated with the button object manipulators are potentially geometrically confusing (see paragraph [0115])

Independent claims 7, 22, and 37 provide for the use of colors on the object manipulator that indicates whether activation of the manipulator will affect properties of another object (see paragraphs [0064]-[0067] and FIGs. 10-11).

Independent claims 8, 23, and 38 provide for reorienting an object manipulator when the initial orientation of the manipulator is visually confusing or indistinct (see paragraphs [0073]-[0076] and FIGs. 12A-12D).

Dependent claims 9, 24, and 39 provide that the reoriented object manipulator is not visible when the orientation of the reoriented manipulator is visually confusing or indistinct (see paragraphs [0073]-[0076]).

Independent claims 10, 25, and 40 provide for different function states of an object manipulator. Each of the function states enable the object manipulator to perform different discrete functions that modify properties of a graphic object. Further, when the object manipulator is activated, the function state of the manipulator is modified (see paragraphs [0077]-[0081] and FIGs. 13A-13D).

Dependent claims 11, 26, and 41 provide that the function state is modified by pressing and releasing a control key (see paragraphs [0077]-[0081] and FIGs. 13A-13D).

Dependent claims 12, 27, and 42 provide for displaying a graphic image to graphically indicate the function state of the manipulator (see paragraphs [0082]-[0085] and FIGs. 14A-14D).

Independent claims 13, 28, and 43 provide for displaying a bitmap image at a cursor position if the cursor position will result in an error when interacting with the object manipulator (see paragraphs [0098]-[0100] and FIG. 17).

Independent claims 14, 29, and 44 provide that a particular glyph shape of the object manipulator indicates an alignment of the object with respect to additional objects. Further, when the object manipulator is activated, the property of the graphic object is modified in response (see paragraphs [0101]-[0102] and FIGs. 18A-18B).

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Independent claims 15, 30, and 45 provide that the object manipulator is displayed in a translucent color such that the graphic object is visible behind the object manipulator (see paragraphs [0103]-[0104] and FIG. 19).

VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 3-5, 7, 10, 11, 16, 18-20, 22, 25, 26, 31, 33-35, 37, 40, and 41 stand rejected under 35 U.S.C. §102(b) as being anticipated by Wallace et al., U.S. Patent No. 5,861,889 (Wallace).

Claims 6, 8, 9, 21, 23, 24, 36, 38, and 39 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wallace in view of Felser et al., U.S. Patent No. 6,025,849 (Felser).

Claims 12, 27, and 42 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wallace in view of Wang, U.S. Patent No. 4,701,752 (Wang).

Claims 13, 28, and 43 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wallace in view of Argiolas, U.S. Patent No. 5,956,032 (Argiolas).

Claims 14, 29, and 44 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wallace in view of Young, U.S. Patent No. 5,299,307 (Young).

Claims 15, 30, and 45 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wallace in view of Frank et al., U.S. Patent No. 5,651,107 (Frank).

All of the above rejections are being appealed.

VII.   ARGUMENT

A.   Independent Claims 1, 16, and 31 are Patentable Over Wallace and Choi

Claims 1, 16, and 31 have been amended to include the limitations from claims 2, 17, and 32. Accordingly, the amended claims provide the ability to activate an object manipulator that is displayed on an object wherein the activation modifies a property of the graphic object. Further, the activation is performed without moving or dragging the object manipulator.

In rejecting prior dependent claims 2, 17, and 32, the Office Action relied on the combination of Wallace and Choi. In this regard, the Office Action admitted that Wallace failed to teach the activation of an object manipulator without dragging the grip/button object manipulator.

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Appellants first note that the object manipulator in the claims is a button object manipulator. In other words, the object manipulator is a button. Such a teaching is contrary to that set forth in Wallace which merely provides a handle that does not appear nor function as a button whatsoever. Accordingly, the mere use of the term "button" to define the object manipulator differentiates Wallace from the present claims.

Secondly, Appellants note that Choi is not related to a drawing program whatsoever. Instead, Choi is directed towards a screen in a computer system and the ability to split the screen (see title and Abstract of Choi). The Office Action asserts that Choi's split icon, minimize icon, restore icon, and left/right split screen setting icon are equivalent to the object manipulators as claimed. Appellants respectfully disagree and traverse such an assertion. Choi's icons are exclusively used to manipulate a window. In this regard, Choi's icons do not even remotely suggest, implicitly or explicitly, the ability to manipulate or perform actions on a graphic object in a drawing program. Simply, there is not even a remote equivalency between a window displayed on a screen and a graphic object in a drawing program. To assert that icons used to manipulate a window are the same or teach button object manipulators used to manipulate a graphic object in a drawing program is wholly without merit.

Further, Appellants submit that a person of ordinary skill in the art would not even attempt to use Choi's icons on such drawing program graphic objects. Nowhere is there any suggestion, or motivation in Wallace or Choi to use Choi's icons on such drawing program graphic objects. In this regard, MPEP §706.02(j) provides that "there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." There is no motivation to combine Choi with Wallace in the manner suggested. The motivation provided in the Office Action is that the user will save time by not having to manipulate the object manually by dragging. While such a benefit may exist, such a motivation relies on impermissible hindsight. Under MPEP §2141.01, "The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention". Appellants submit that without the teaching of the present invention, one would not acknowledge the benefit asserted in the Office Action. Accordingly, the Action relies on impermissible hindsight.

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In view of the above, Appellants submit that neither Wallace nor Choi, individually or combined, teach, disclose, or suggest the invention as claimed. Accordingly, Appellants respectfully request allowance of these independent claims.

In response to the above arguments, the Advisory Action submits that since a left mouse button is clicked when a cursor is over a handle, a mode is entered, activating a function, and such a sequence has the same properties as a button.

Appellants respectfully traverse and submit that the Office Action omits an essential element needed for a prima facie rejection. In this regard, the claims explicitly provide that the activating of the object (i.e., the clicking of the mouse button without dragging the button) modifies a property of the graphic object. The example provided in the Advisory Action and the rejection in the final Office Action clearly omits the fact that a property of the graphic object is directly modified with the activation. Merely moving into a mode where the user can drag a frame center handle does not equate to a direct modification of a property of the object without dragging the mouse button. In this regard, both the Office Action and Advisory Action omit the essential claimed element relating to the direct modification of the property of the graphic object in response to the activation that occurs without moving the button object manipulator.

In view of the above, Appellants submit respectfully request the reversal of the rejections.

B.   Dependent Claims 3, 18, and 33 are Patentable Over Wallace

As described above, dependent claims 3, 18, and 33 provide that the property that is modified is a graphically displayed property of the graphic object (i.e., that the button object manipulator is displayed on) (see paragraph [0055] and FIGS. 6A-6B).

In rejecting these claims, the Office Action merely refers to Col. 10, lines 51-56 of Wallace. This portion of Wallace provides:

> If pointer C, while grasping frame center knob handle 220, is moved and is over a "hit" item, at step 414 a hit point in space of the displayed object being positioned is calculated. Then, at step 416, the entire object movement reference frame 26 is moved so that its frame center knob handle 220 is at the calculated (new) hit point (step 416).

This text refers to FIG. 13-4:

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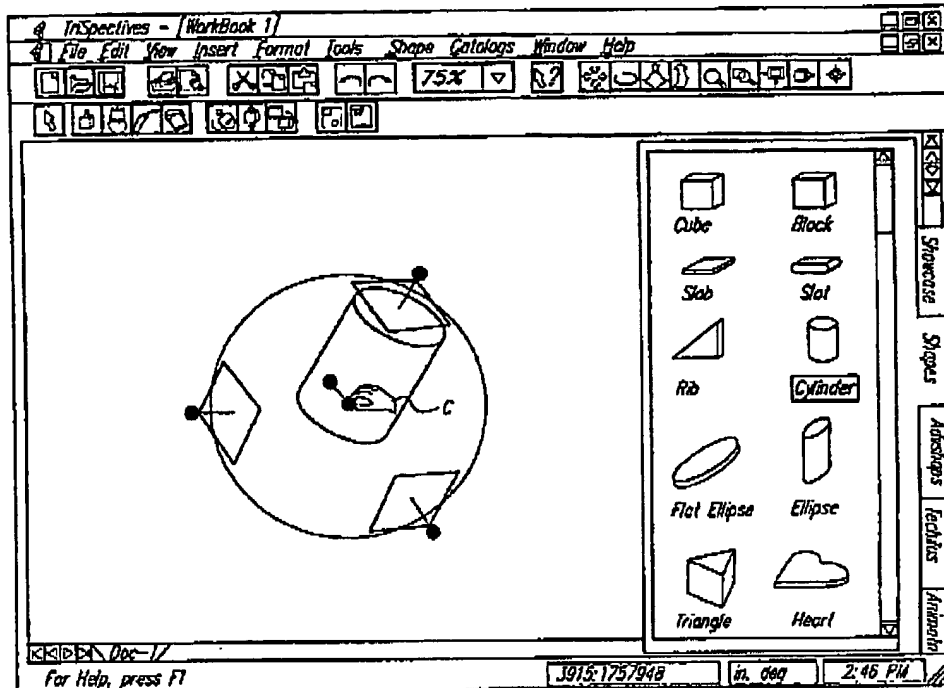
FIG. 13-4

As can be seen from the figure and text, rather than displaying a graphically displayed property of the graphic object that the hand C is placed on (i.e., a property of the circle or cylinder), the selection of the hand C while over a knob handle moves the entire reference frame (i.e., the entire circle including all of the cylinders). Such a teaching is not even remotely similar to modifying a property directly wherein the property is a graphically displayed property of the object. Further, as claimed the property changes without moving the object manipulator. In the cited text, one must move the hand and frame center knob to change the entire reference frame.

In view of the above, the various specifically claimed elements are not even remotely contemplated or hinted at by Wallace or the cited description. Accordingly, Appellants respectfully request reversal of the rejections.

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C.   <u>Dependent Claims 4, 19, and 34 are Patentable Over Wallace</u>

Dependent claims 4, 19, and 34 provide that the property of the graphic object identifies a set of object manipulators that are displayed on the graphic object and can be used to manipulate the graphic object. Further, the modification of the property changes the set of object manipulators. (See paragraph [0114]).

In rejecting these claims, the Office Action merely cites the same text in col. 10, lines 51-56 of Wallace. As can be clearly seen from the text and figures, there is no reference, explicit or implicit to a set of object manipulators that are changed based on the selection of a particular object manipulator (that changes a property of the object). In this regard, Wallace fails to teach, disclose, or suggest, a set of object manipulators, a set of object manipulators that are identified by a property of a graphic object, and the ability to change the set of object manipulators based on a change to the property that identifies the set. Further, the Office Action completely ignores these various specifically claimed elements.

In view of the above, Appellants respectfully request reversal of the rejections of these dependent claims.

D.   <u>Dependent Claims 5, 20, and 35 are Patentable Over Wallace</u>

Dependent claims 5, 20, and 35 provide that the modification of the property of the graphic object is performed by displaying a discrete number of acceptable property values followed by the selection of one or more of the acceptable property values (see paragraph [0120] and FIG. 21).

In rejecting these claims, the Office Action relies on col. 9, lines 1-12. Col. 8, line 64-col. 9, line 12 provides:

> If it is determined at step 314 (see FIG. 3A) that mouse pointer C is over one of the object plane handles 214, step 316 is executed. At step 316, mouse pointer C changes to another one of its movement representations, in particular the four orthogonal outwardly pointing arrows shown in FIG. 13-16. As mouse pointer C is moved within the interior of the square region bounded by plane handle 214, mouse pointer C retains this "planar" movement representation. In addition, the square perimeter of plane handle 214 is highlighted (i.e., changes to a contrasting color). Thereafter, if the mouse left button 35L is clicked, an object planar drag movement mode is entered. In this regard, since it will be determined (via step 302) at step 360 of FIG. 3B that the mouse pointer C is over an object plane handle 214, the object planar drag movement mode is entered as shown by step 362. Steps involved in the object planar drag movement mode are shown in FIG. 6.

The Office Action then states:

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> In either case, the user then clicks the left mouse button (35L) to enter the specific mode to alter the property of the graphical object (claims 10.d., 25.iv., 40.d.). Thus, a discrete number of options are provided to the user to choose the desired property for manipulation of the graphical object, depending on the handle chosen (claims 5, 20, 35).

Appellants respectfully traverse these assertions. As claimed, once the button object manipulator is activated, a discrete number of acceptable property values are displayed and a selection of one or more of the acceptable property values is selected. The Office Action is attempting to equate such claim language to: the mere movement of a mouse pointer over an object plane handle that causes the pointer to change to four orthogonal pointing arrows; followed by the clicking of the left mouse button or right mouse button that causes the entry into a planar drag movement mode.

As can be seen, such a teaching lacks several specific claim limitations. For example, a discrete number of acceptable property values are not displayed. The change of a cursor into four orthogonal arrows is not equivalent to displaying a discrete number of acceptable property values for the property. Further, the clicking of the mouse button does not select one of the discrete values. Instead, Wallace's clicking of the mouse button causes the user to enter a planar drag movement mode. Such a teaching is not even remotely similar to that set forth in the claims.

In view of the above, Appellants respectfully request reversal of the rejections.

E.   Dependent Claims 6, 21, and 36 are Patentable Over Wallace in view of Felser

Dependent claims 6, 21, and 36 provide for displaying multiple button object manipulators in geometrically meaningful locations on the graphic object when language based descriptions of properties associated with the button object manipulators are potentially geometrically confusing (see paragraph [0115]).

In rejecting these claims, the Office Action submits that Felser discloses a software system that enables the creation and maintenance of relationship between properties of objects, wherein the objects can be authored by a user. The Action then refers to col. 6, lines 54-59 that provides:

> The handle 212 position is thus independent of mouse position, and the shape author relates the handle 212 position to the mouse pointing device 112 position by using an expression to achieve any desired handle 212 motion.

The Office Action then alleges the following:

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The handle (212) position is thus independent of mouse position, and the shape author relates the handle position (212) to the mouse pointing device (112) position by using an expression to achieve any desired handle (212) motion [column 6, lines 54-59], such as moving to a new location on the attached object when the handle (210) is being obstructed by another object (claims 6, 21, 36) or reorienting the handles (210) if they are clearly viewable (claims 8, 23, 38). (Emphasis Added)

Appellants respectfully traverse and submit that there is no foundation for such an assertion. In this regard, the text of Felser does not describe, teach, or suggest moving to a new location of the attached object when the handle is being obstructed by another object. Such an assertion is purely based on speculation by the Examiner without any logical or factual support in Felser. In this regard, such an assertion is improper. Further, under MPEP §2142 and 2143.03 "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." In this regard, the allegations in the Office Action are not taught or suggested by the prior art in any manner, explicitly or implicitly.

In view of the above, Appellants respectfully request reversal of the rejections of these claims.

F.   Independent Claims 7, 22, and 37 are Patentable Over Wallace

As described above, these claims set forth specific limitations in that an object manipulator is displayed on a graphic object. In addition, a color of the object manipulator indicates whether the activation of the object manipulator will affect a property on another object. In other words, rather than the color indicating if the activation of the object will affect a property of an object that the manipulator is displayed on, the color indicates if the activation will affect a property of another object.

In rejecting these claims, the Office Action relies exclusively on Wallace. Specifically, the Action recites how at step 308 of FIG. 3 that the interior of the frame center knob handle changes color and the mouse pointer changes to have a move representation. However, while the color of Wallace's frame center knob handle may change, the color/highlighting merely indicates that the handle on Wallace can be used (see col. 8, lines 35-40). In this regard, Wallace's highlighting/color indicates that the center knob handle can be moved to manipulate the object. However, the highlighting/color change does not even remotely reflect whether a property of another object will

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be affected by the activation of the handle. In this regard, the handle is merely used to manipulate the object itself and does not relate to properties of any other objects. Further, there is no suggestion, implicit or explicit, that the center knob handle or color of the handle teaches, discloses, suggests, or alludes to properties of objects other than the object on which Wallace's handle is displayed.

In view of the above, Appellants submit that Wallace's color change and highlighting merely reflects the ability to manipulate the object using the handle that changes color. Not only is the handle not equivalent to the claimed object manipulator, but the color of the claimed object manipulator reflects whether properties of an object (other than the object on which the manipulator is displayed) will be affected by activation of the manipulator. Such a teaching is not implicitly or explicitly described by Wallace.

In response to the above arguments, the Advisory Action provides:

> ...the highlighting of Wallace's handle indicates to the user the activation of the mode related to the handle. As shown in Fig. 1 of Wallace, by manipulating the handle, the sphere (26) is manipulating and in return, the graphical object (24) within the sphere is also manipulated. Thus, the activation of the handle will affect one or more properties of another object.

Appellants further submit that the Advisory Action and final Office Action omit an essential element needed to establish a prima facie rejection. Namely, regardless of whether the activation of the handle will affect one or more properties of another object, the claims provide a specific limitation where the color of the manipulator indicates whether the activation of the manipulator will affect a property of another object. Nowhere in the Advisory Action or Final Office Action is there any assertion that addresses the claim element relating to the color of the manipulator that provides such an indication. In fact, the rejections thereby contain a clear error in failing to address this essential element of the claim.

In view of the above, Appellants respectfully request reversal of the rejections.

G.   Independent Claims 8, 23, and 38 are Patentable Over Wallace and Felser

These independent claims relate to the orientation of an object manipulator. Specifically, if the initial orientation of the manipulator is visually confusing or indistinct, the manipulator is reoriented.

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In rejecting these claims, the Office Action essentially relies on Felser col. 6, lines 54-59 and states that the handle position is thus independent of mouse position, and the shape author relates the handle position to the mouse pointing device position by using an expression to achieve any desired handle motion. Col. 6, lines 32-59 relate to handles and how the movement of a handle can be constrained. In this regard, col. 6, lines 52-58 provides:

> The shape author can use any expression, e.g., trigonometric functions, equations, or other functions to constrain handle properties. The handle 212 position is thus independent of mouse position, and the shape author relates the handle 212 position to the mouse pointing device 112 position by using an expression to achieve any desired handle 212 motion.

As can be seen from this text, the handle position may be independent of mouse position and can be related to the mouse position by an expression to achieve a particular desired handle motion. The Office Action stretches the above citation to state that desired handle motions may include moving to a new location on the attached object when the handle is being obstructed by another object or reorienting the handles if they are clearly viewable. There is not even a remote reference to moving Felser's handle to a new location if it is obstructed or reorienting the handle. While Felser provides the ability to achieve any desired handle motion, the specifically claimed ability to reorient an object manipulator is not disclosed, taught, or suggested. Firstly, desired handle motion is not equivalent to reorienting an object manipulator. Further, Felser does not teach, disclose, suggest, allude to, hint or otherwise describe, implicitly or explicitly, a visually confusing orientation or indistinct initial orientation of an object manipulator. To suggest such a teaching extends far beyond the scope of both Wallace and Felser.

In response to the above arguments, the Advisory Action provides:

> ...the claims do not state that the object manipulator is reoriented automatically if the initial orientation is visually confusing or indistinct. Thus, the ability to move the handles via the invention of Felser reads on these claims.

Appellants submit that the Office Action is misreading the claims and such an element is contained in the claims. For example, claim 8 contains a specific limitation that provides "reorienting the object manipulator when an initial orientation is visually confusing or indistinct." Such language cannot merely be ignored when attempting to establish a prima facie rejection. In this regard, to assert that the mere ability to move a handle per Felser teaches all of the limitations including reorienting the manipulator when an initial orientation is visually confusing is wholly

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without merit. The Examiner is relying of features that are wholly and completely lacking from any cited reference to reject the claims. Again, the claim language cannot merely be ignored and given no meaning at all when interpreting a claim.

In view of the above, Appellants respectfully request reversal of the rejections.

H.   Dependent Claims 9, 24, and 39 are Patentable Over Wallace and Felser

Dependent claims 9, 24, and 39 provide that the reoriented object manipulator is not visible when the orientation of the reoriented manipulator is visually confusing or indistinct (see paragraphs [0073]-[0076]).

The Office Action again relies on pure subjective logic when rejecting these claims. Specifically, the Action states that "it would have been obvious to one of ordinary skill in the art to permit multiple iterations of reorienting the handles (210) when the handles (210) are not clearly viewable so that the user will constantly be able to access the handles (210) regardless of the altered orientation."

Appellants note that for the multiple iterations, no art is cited; for the clearly viewable aspects, no art is cited; for the altered orientation, no art is cited. Without citing any art but purely relying on a subjective analysis of the Examiner is improper. As stated above, the prior art and not pure subjective analysis without any evidentiary support must be used to reject the claims.

Appellants submit that Felser (and the other cited references) fail to provide for an object manipulator that is not visible as claimed. Further, the cited references fail to teach, disclose, or suggest, that an object manipulator that has been reoriented is not visible, when the orientation is visually confusing or indistinct.

In view of the above, Appellants respectfully request reversal of the rejections.

I.   Independent Claims 10, 25, and 40 are Patentable Over Wallace

These independent claims provide for different function states of an object manipulator. Each of the function states enable the object manipulator to perform different discrete functions that modify properties of a graphic object. In other words, a single manipulator can be in various different function states where each state enables a different function. In addition, when the object

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manipulator is activated, the function state of the manipulator is changed and the property of the graphic object changes. Again, the claims provide that each of the different function states enables a function that modifies a property of the graphic object.

In rejecting these claims, the Office Action relies exclusively on Wallace. The Office Action submits that there are various handles that may be selected. Again, the claims do not recite different manipulators that can be selected with each manipulator available to perform a different function. Instead, each claimed manipulator has multiple different function states that each performs different functions. There is a clear difference between such multiple function states as claimed and the different handles or selection of a single handle in Wallace. The Action also attempts to assert that the selection of the single handset that changes the frame center knob handles is equivalent to the different function states as claimed. Appellants respectfully disagree. Firstly, the frame center knob handle that has not been selected cannot perform any function that modifies a property of the graphic object Thus, the only function that is performed is that which occurs after the frame center knob handle has been selected. Accordingly, Wallace fails to describe a single object manipulator that has several different function states wherein each function state modifies a property of the object.

The Action then states that there are a discrete number of options that are provided to the user to choose the desired property for manipulation of the graphical object depending on the handle chosen. Appellants again note that while such a fact may be true, the disclosure fails to describe a single handle having different function states that can be changed by activating the manipulator.

The Action further points to FIG. 4 and the ability to drag the frame center knob handle and the different hit points. As claimed, the object manipulator may be in various different function states. When the manipulator is activated, not only does the function state change, but the function associated with the function state and object manipulator changes. Merely dragging a frame center knob handle and determining if it is over a hit point does not even remotely address such different function states or functions as recited in the claims.

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In response to the above, the Advisory Action responds by stating that merely by moving the cursor over the frame center knob, the color is altered (one function) and by clicking the mouse, the handle goes into movement mode (a second function).

Appellants respectfully traverse and again assert that an essential element of the claim is omitted thereby leading to clear error in the rejection and a failure to establish a prima facie rejection. The claims explicitly provide that each function state enables the object manipulator to perform one or more discrete functions that modify a property of the graphic object. The first function cited in the Advisory Action merely alters a knob color but completely fails to modify a property of the graphic object or enable the manipulator to perform a function that modifies a property of the graphic object. Accordingly, the frame center knob does not and cannot meet the claim limitations. The Actions fail to state how the knob color alteration meets the claim limitations. In this regard, the essential elements of the claims that relate to function states and what the function states are enabled to do are omitted from the Office Action.

In view of the above, Appellants respectfully request reversal of the rejections of these independent claims.

J. Dependent Claims 11, 26, and 41 are Patentable Over Wallace

Dependent claims 11, 26, and 41 provide that the function state is modified by pressing and releasing a control key (see paragraphs [0077]-[0081] and FIGs. 13A-13D).

In rejecting these claims, the Office Action groups the claims into rejections of other claims and merely states "If the left mouse button (35L) is clicked (claims 1, 7, 10.b.iii., 11, 16.b.iii., 22, 25(c), 26, 31, 37, 40.c., 41: activating button object manipulator)..."

Appellants submit that such a rejection completely ignores the explicit claim language that provides for modifying a function state using a control key. In this regard, clicking a mouse button is not similar not does it suggest the use of a control key. Further, the ability to modify a function state using such a control key is not even remotely alluded to by cited portion (or remainder) of Wallace.

In view of the above, Appellants respectfully request reversal of the rejections.

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K.   Dependent Claims 12, 27, and 42 are Patentable Over Wallace and Wang

Dependent claims 12, 27, and 42 provide for displaying a graphic image to graphically indicate the function state of the manipulator (see paragraphs [0082]-[0085] and FIGs. 14A-14D). The rejection relies on Wang FIGs. 3 and 4:
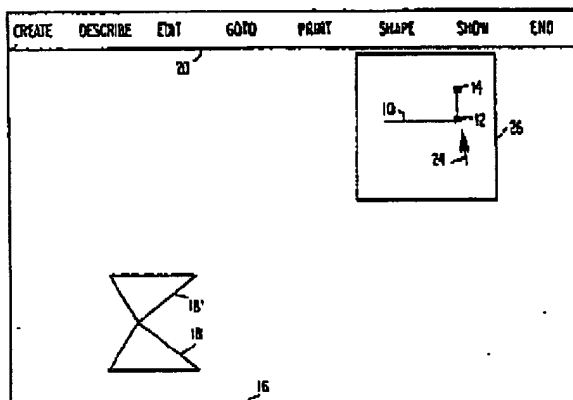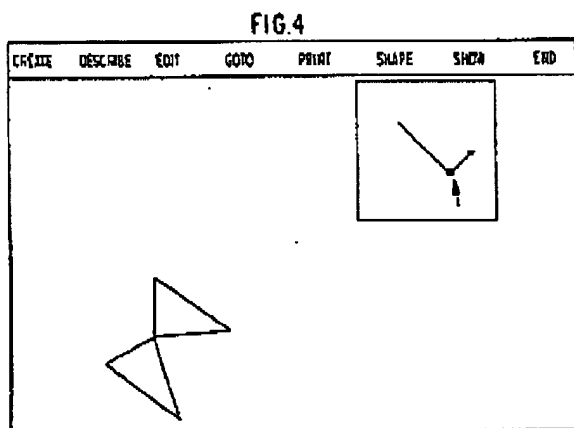

FIG.3

FIG.4

These figures illustrate the use of a second window displayed in the corner. Fig. 3 illustrates the selection of a mirror direction handle while FIG. 4 illustrates the result of rotating the mirror direction handle (see col. 2, lines 46-53).

However, the current claims provide for multiple function states with a graphic image indicating the function state of the manipulator. The display of a result of using an object manipulator as in Wang does not teach, nor is it remotely similar to teaching the display of a function state of a manipulator when the manipulator can have multiple function states. In this

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regard, forcing the user to actually perform a rotation to display what the object manipulator does avoids a goal of displaying the function state as claimed. For example, paragraph [0083] of the present specification provides:

[0083]   In one or more embodiments of the invention, a graphic image may be displayed near the cursor of the pointing device to graphically indicate the manipulator's current function state. Accordingly, if a single object manipulator has multiple functions, which the user is able to cycle through, the user can easily visually identify the manipulator's current function state.

These advantages are clearly lacking from Wang.

In view of the above, Appellants respectfully request reversal of the rejections.

L.   Independent Claims 13, 28, and 43 are Patentable Over Wallace and Argiolas

These independent claims provide for displaying a bitmap image at a cursor position if the cursor position will result in an error when interacting with the object manipulator. In rejecting these claims, the Office Action relies on Wallace and Argiolas. Specifically, to teach the element of the bitmap image for an error condition, the Action relies on Argiolas' teaching that a window size has reached a maximum or minimum size limit.

Appellants submit that Argiolas's field of art is not even remotely similar to that of the present invention. Further, the modification of the size of a window does not teach, disclose, or suggest, implicitly or explicitly, the use of an object manipulator that is displayed on a graphic object in a computer graphics drawing program.

Argiolas' disclosure is directed towards forbidden traffic actions when attempting to resize a window. However, contrary to the implications of the Office Action, a window is not even remotely similar to a graphic object. In this regard, a window could represent an instance of a drawing program that has graphic objects within it. However, a window and actions performed on the size of a window are not related to nor do they suggest the use of an object manipulator on a graphic object. Further, Appellants note that the error condition as claimed relates to the use of an object manipulator and whether the use of the object manipulator will result in an error condition if the cursor position is selected. However, there are no grips/object manipulators reflected or hinted at in Argiolas. The mere disclosure of a bitmap if a window resizing cannot be performed does not

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and cannot teach whether the use of a specific object manipulator in a drawing program will result in an error condition.

In addition, there is no suggestion or motivation to use the forbidden traffic action visual signals of Argiolas with the handles set forth in Wallace. Wallace merely describes the use of various handles in a drawing program. However, to use the visual indicators of Argiolas with the specific handles of Wallace extends far beyond the scope of either Wallace or Argiolas.

In fact, even if Argiolas is combined with Wallace, the combination would still fail to teach the invention. For example, the combination would teach Wallace's handles and drawing program within a window that may be resized having visual traffic signals in accordance with Argiolas. However, the combination would not disclose nor suggest the use of Argiolas' traffic signals with Wallace's handles.

In response to the above, the Advisory Action responds that based on a computer dictionary, a window is a portion of the screen within an application or graphical interface that can contain its own document or message. The Advisory Action continues and states that the boundaries of a graphical interface equate to graphical elements and since a graphics drawing program can have windows, the resizing of the boundaries equates to graphical element being modified.

Appellants respectfully traverse and submit that there is clear error in the Examiner's rejections and logic. Firstly, the Examiner is relying on a dictionary definition that is outside of the scope of the record presented to date and is outside of the scope of the present specification. In addition, the Action clearly omits the use of an object manipulator on a graphic object in a graphics drawing program (as claimed). Equating a general window to such a graphic object omits an essential element of the claims – a graphic object in a computer graphics program with a grip on top of the object (with the details of such objects clearly established in the specification of the invention).

In view of the above, Appellants respectfully request reversal of the rejections of these independent claims.

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M.   Independent Claims 14, 29, and 44 are Patentable Over Wallace and Young

These independent claims provide that a particular glyph shape of the object manipulator indicates an alignment of the object with respect to additional objects. In other words, the claims provide for displaying an object manipulator glyph that is a grip directly on a graphic object. Further, the shape of the glyph indicates an alignment of the object with respect to other objects.

In rejecting these claims, the Office Action relies on both Wallace and Young. More specifically, the Action relies on Young to teach the alignment related aspects of the claims. Appellants respectfully disagree with and traverse the rejections. Young's description relates to displaying guidelines and guidepoints. The Office Action asserts that the guidepoints are equivalent to Wallace's handles. Assuming such is true, to meet the claim limitations, the guidepoints would have to contain a glyph that indicates an alignment of the graphic object with respect to one or more additional objects. Instead of indicating such an alignment, Young displays a small circle around a point that merely indicates that the point is the guide point associated with the guideline (see col. 6, lines 32-34). However, there is no glyph displayed in Young that indicates an alignment with another graphic object. Further, as explicitly claimed, the shape of Young's circle does not indicate such an alignment. Again, the claims expressly provide that the glyph shape of the object manipulator indicates an alignment of the graphic object with respect to one or more additional objects. A mere circle is not a particular glyph shape that indicates an alignment. Instead, Young's circle merely indicates that a particular point is associated with a guideline. Such a teaching is not remotely similar, nor does it hint or suggest the particular glyph shape and meaning of the glyph shape as claimed.

In response to the above arguments, the Advisory Action responded that the circle indicates that the graphical elements are within the proximity region of the guidelines.

Appellants respectfully traverse the above assertions and submit that there is clear error in the rejections. Namely, the claims explicitly provide that the "particular glyph shape of the object manipulator indicates an alignment of the graphic object with respect to one or more additional objects". Thus, the glyph shape itself must indicate the alignment. The Advisory Action omits any mention of the particular glyph shape and instead states that the look of the particular glyph shape is not specified. However, the language of the claims indicates that the particular glyph shape indicates

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an alignment. A mere circle does not indicate anything relating to alignment. Further, the circle merely indicates that the point is a guide point associated with a guideline and does not indicate an alignment with other objects as claimed. In this regard, the Action omits an essential element of the claims and fails to establish a prima facie rejection.

In view of the above, Appellants respectfully request reversal of the rejection of these claims.

N.   Independent Claims 15, 30, and 45 are Patentable Over Wallace and Frank

These independent claims provide that the object manipulator is displayed in a translucent color such that the graphic object is visible behind the object manipulator. More specifically, like the other claims, the object manipulator is displayed on a graphic object. However, unlike the other claims, the object manipulator itself is translucent such that the graphic object on which it is displayed is visible behind the object manipulator.

In rejecting these claims, the Action relies primarily on Frank. Namely, the Action submits that Frank's buttons that allow the selection of a particular window are equivalent to the claimed object manipulators. The Action then concludes that the windows are transparent and therefore a graphic object can be seen behind a button. However, the Action is misinterpreting the reference. Firstly, it is not the buttons 285-288 that are transparent in Frank. In this regard, the windows are transparent. Further, nowhere in Frank in either FIG. 10, or col. 9, line 60-col. 10, line 25 is there a description of a graphic object that can be seen behind a button. Instead, the buttons may all be seen. In this regard, it is unknown if any graphic object would be visible behind button 282, 286 or 277. Instead, Figure 10 merely shows the ability to see each button with nothing visible behind each button.

The claims explicitly provide that the object manipulator itself is transparent and not the window. Further, the claims also explicitly provide that a graphic object is visible behind the translucent object manipulator. In this regard, the claims do not provide that a window is translucent and a button may be seen through a window. It is completely unknown in Frank if the buttons are translucent or not. Further, Frank fails to describe any such translucency of a button.

In addition to the above, Appellants also submit the Frank merely relates to overlapping windows of a display and is not remotely relevant or related to a computer graphics drawing

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program as claimed.

In response to the above arguments, the Advisory Action responded by relying on FIG. 10 and stating that it shows windows and buttons 285-288 being translucent.

Appellants submit that such an interpretation is beyond the scope of Frank, is without merit, and thereby establishes clear error in the rejection. Buttons 285-288 are not shown translucent whatsoever. The figure illustrates a black and white drawing. Behind each button 285-288 is a white background. Thus, contrary to that asserted in the Action, FIG. 10 could only be used to provide that the buttons are not translucent since nothing is shown behind them at all. Again, the text of Frank fails to even remotely describe any such translucency of the buttons. Further, there is no statement in Frank that establishes that the buttons are part of the window's transparency. As far as that illustrated in FIG. 10, the buttons may appear non-translucent to allow the user to more easily manipulate the windows. In view of the above, Appellants submit that the Actions are attempting to assert Frank for a concept that is not described or alluded to in Frank at all.

In addition, the claimed object manipulator is on a graphic object in a drawing program. Similar to the arguments asserted with respect to claims 13, 28, and 43, the windows of Frank are not graphic objects in a computer drawing program and the icons are not object manipulators that are grips displayed on a graphic object. Thus, further essential elements relating to a "grip", and displaying the object manipulator on the graphic object are omitted in the Office Action thereby clearly indicating the Action's failure to establish a prima facie rejection.

In view of the above, Appellants respectfully request reversal of the rejections of these independent claims.

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O.   Conclusion

In light of the above arguments, Appellants respectfully submit that the cited references do not anticipate nor render obvious the claimed invention. More specifically, Appellants' claims recite novel physical features which patentably distinguish over any and all references under 35 U.S.C. §§ 102 and 103. As a result, a decision by the Board of Patent Appeals and Interferences reversing the Examiner and directing allowance of the pending claims in the subject application is respectfully solicited.

Respectfully submitted,

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JSF/

Encls: Claims Appendix
       Evidence Appendix
       Related Proceedings Appendix

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CLAIMS APPENDIX

1. A method for modifying a property of a graphic object in a computer graphics drawing program, comprising:

    (a) displaying a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements;

    (b) displaying a button object manipulator, comprised of a grip, on the graphic object;

    (c) activating the button object manipulator, wherein the activating comprises:

        (i) placing a cursor controlled by a pointing device over the button object manipulator; and

        (ii) clicking a button on the pointing device to activate the button object manipulator without dragging the button object manipulator; and

    (d) directly modifying a property of the graphic object in response to the activation.

2. (CANCELLED)

3. The method of claim 1, wherein the property comprises a graphically displayed property of the graphic object.

4. The method of claim 1, wherein:

the property of the graphic object identifies a set of object manipulators that are displayed on the graphic object and can be used to manipulate the graphic object; and

the modification of the property changes the set of object manipulators.

5. The method of claim 1, wherein the modifying a property of the graphic object comprises:

displaying a discrete number of acceptable property values; and

selecting one or more of the acceptable property values.

6. The method of claim 1, further comprising displaying multiple button object manipulators in geometrically meaningful locations on the graphic object when language-based

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descriptions of properties associated with the one or more button object manipulator are potentially geometrically confusing.

7.   A method for displaying an object manipulator in a computer graphics drawing program comprising:

displaying a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements;

displaying an object manipulator, comprised of a grip, on the graphic object in a color, wherein the color of the object manipulator indicates whether activation of the object manipulator will affect one or more properties of another object.

8.   A method for displaying an object manipulator in a computer graphics drawing program comprising:

displaying a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements;

displaying an object manipulator, comprised of a grip, on the graphic object; and

reorienting the object manipulator when an initial orientation is visually confusing or indistinct.

9.   The method of claim 8, wherein the reoriented object manipulator is not visible when the orientation of the reoriented object manipulator is visually confusing or indistinct.

10.   A method for modifying a property of a graphic object in a computer graphics drawing program, comprising:

(a)   displaying a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements;

(b)   displaying an object manipulator, comprised of a grip, on the graphic object, wherein:

(i)   the object manipulator may be in two or more function states;

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(ii)   each function state enables the object manipulator to perform one or more discrete functions that modify one or more properties of the graphic object;

(c)   activating the object manipulator;

(d)   modifying the function state of the object manipulator; and

(e)   modifying one of the properties of the graphic object.

11.   The method of claim 10, wherein the function state is modified by pressing and releasing a control key.

12.   The method of claim 10, further comprising displaying a graphic image to graphically indicate the function state of the object manipulator.

13.   A method for displaying an object manipulator in a computer graphics drawing program, comprising:

displaying a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements;

displaying an object manipulator, comprised of a grip, on the graphic object;

activating the object manipulator; and

displaying a bitmap image at a cursor position if selecting the cursor position will result in an error condition when interacting with the object manipulator.

14.   A method for modifying a property of a graphic object in a computer graphics drawing program, comprising:

displaying a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements;

displaying an object manipulator, comprised of a grip, on the graphic object wherein a particular glyph shape of the object manipulator indicates an alignment of the graphic object with respect to one or more additional objects.;

activating the object manipulator; and

modifying a property of the graphic object in response to the activation.

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15.   A method for displaying an object manipulator in a computer graphics drawing program, comprising:

displaying a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements;

displaying an object manipulator, comprised of a grip, on the graphic object wherein the object manipulator is displayed in a translucent color, such that the graphic object is visible behind the object manipulator.

16.   An apparatus for modifying a property of a graphic object in a computer graphics drawing program of a computer system comprising:

(a)   a computer having a memory;

(b)   an application executing on the computer, wherein the application is configured to:

(i)   display a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements;

(ii)   display a button object manipulator, comprised of a grip, on the graphic object;

(iii)   activate the button object manipulator by:

(1)   placing a cursor controlled by a pointing device over the button object manipulator; and

(2)   clicking a button on the pointing device to activate the button object manipulator without dragging the button object manipulator; and

(iv)   directly modify a property of the graphic object in response to the activation.

17.   (CANCELLED)

18.   The apparatus of claim 16, wherein the property comprises a graphically displayed property of the graphic object.

19.   The apparatus of claim 16, wherein:

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the property of the graphic object identifies a set of object manipulators that are displayed on the graphic object and can be used to manipulate the graphic object; and

    the modification of the property changes the set of object manipulators.

20.   The apparatus of claim 16, wherein the application is configured to modify a property of the graphic object by:

    displaying a discrete number of acceptable property values; and

    selecting one or more of the acceptable property values.

21.   The apparatus of claim 16, wherein the application is further configured to display multiple button object manipulators in geometrically meaningful locations on the graphic object when language-based descriptions of properties associated with the one or more button object manipulator are potentially geometrically confusing.

22.   An apparatus for displaying an object manipulator in a computer graphics drawing program of a computer system comprising:

    (a)   a computer having a memory;

    (b)   an application executing on the computer, wherein the application is configured to:

        (i)   display a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements; and

        (ii)   display an object manipulator, comprised of a grip, on the graphic object in a color, wherein the color of the object manipulator indicates whether activation of the object manipulator will affect one or more properties of another object.

23.   An apparatus for displaying an object manipulator in a computer graphics drawing program of a computer system comprising:

    (a)   a computer having a memory;

    (b)   an application executing on the computer, wherein the application is configured to:

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(i)   display a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements; and

(ii)   display an object manipulator, comprised of a grip, on the graphic object; and

(iii)   reorient the object manipulator when an initial orientation is visually confusing or indistinct.

24.   The apparatus of claim 23, wherein the reoriented object manipulator is not visible when the orientation of the reoriented object manipulator is visually confusing or indistinct.

25.   An apparatus for modifying a property of a graphic object in a computer graphics drawing program of a computer system comprising:

(a)   a computer having a memory;

(b)   an application executing on the computer, wherein the application is configured to:

(i)   display a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements;

(ii)   display an object manipulator, comprised of a grip, on the graphic object, wherein:

(1)   the object manipulator may be in two or more function states; and

(2)   each function state enables the object manipulator to perform one or more discrete functions that modify one or more properties of the graphic object;

(iii)   activate the object manipulator;

(iv)   modify the function state of the object manipulator; and

(v)   modify a property of the graphic object.

26.   The apparatus of claim 25, wherein the function state is modified by pressing and releasing a control key.

27.   The apparatus of claim 25, wherein the application is further configured to display a graphic image to graphically indicate the function state of the object manipulator.

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28.   An apparatus for displaying an object manipulator in a computer graphics drawing
program of a computer system comprising:

   (a)   a computer having a memory;

   (b)   an application executing on the computer, wherein the application is configured to:

      (i)   display a graphic object in a computer graphics drawing program, wherein
the graphic object comprises one or more graphical elements;

      (ii)   display an object manipulator, comprised of a grip, on the graphic object;

      (iii)   activate the object manipulator; and

      (iv)   display a bitmap image at a cursor position if selecting the cursor position
will result in an error condition when interacting with the object manipulator.

29.   An apparatus for modifying a property of a graphic object in a computer graphics
drawing program of a computer system comprising:

   (a)   a computer having a memory;

   (b)   an application executing on the computer, wherein the application is configured to:

      (i)   display a graphic object in a computer graphics drawing program, wherein
the graphic object comprises one or more graphical elements;

      (ii)   display an object manipulator, comprised of a grip, on the graphic object
wherein a particular glyph shape of the object manipulator indicates an alignment of the
graphic object with respect to one or more additional objects;

      (iii)   activate the object manipulator; and

      (iv)   modify a property of the graphic object in response to the activation.

30.   An apparatus for displaying an object manipulator in a computer graphics drawing
program of a computer system comprising:

   (a)   a computer having a memory;

   (b)   an application executing on the computer, wherein the application is configured to:

      (i)   display a graphic object in a computer graphics drawing program, wherein
the graphic object comprises one or more graphical elements; and

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(ii)   display an object manipulator, comprised of a grip, on the graphic object in a translucent color, such that the graphic object is visible behind the object manipulator.

31.   An article of manufacture comprising a program storage medium readable by a computer and embodying one or more instructions executable by the computer to perform a method for modifying a property of a graphic object in an object-oriented computer graphics drawing system, the method comprising:

(a)   means for displaying a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements;

(b)   means for displaying a button object manipulator, comprised of a grip, on the graphic object;

(c)   means for activating the button object manipulator, wherein the means for activating comprises:

(i)   means for placing a cursor controlled by a pointing device over the button object manipulator; and

(ii)   means for clicking a button on the pointing device to activate the button object manipulator without dragging the button object manipulator; and

(d)   means for directly modifying a property of the graphic object in response to the activation.

32.   (CANCELLED)

33.   The article of manufacture of claim 31, wherein the property comprises a graphically displayed property of the graphic object.

34.   The article of manufacture of claim 31, wherein:
the property of the graphic object identifies a set of object manipulators that are displayed on the graphic object and can be used to manipulate the graphic object; and
the modification of the property changes the set of object manipulators.

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35.   The article of manufacture of claim 31, wherein the means for modifying a property of the graphic object comprises:

    means for displaying a discrete number of acceptable property values; and

    means for selecting one or more of the acceptable property values.

36.   The article of manufacture of claim 31, further comprising means for displaying multiple button object manipulators in geometrically meaningful locations on the graphic object when language-based descriptions of properties associated with the one or more button object manipulator are potentially geometrically confusing.

37.   An article of manufacture comprising a program storage medium readable by a computer and embodying one or more instructions executable by the computer to perform a method for displaying an object manipulator in an object-oriented computer graphics drawing system, the method comprising:

    means for displaying a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements;

    means for displaying an object manipulator, comprised of a grip, on the graphic object in a color, wherein the color of the object manipulator indicates whether activation of the object manipulator will affect one or more properties of another object.

38.   An article of manufacture comprising a program storage medium readable by a computer and embodying one or more instructions executable by the computer to perform a method for displaying an object manipulator in an object-oriented computer graphics drawing system, the method comprising:

    means for displaying a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements;

    means for displaying an object manipulator, comprised of a grip, on the graphic object;

    means for reorienting the object manipulator when an initial orientation is visually confusing or indistinct.

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39. The article of manufacture of claim 38, wherein the reoriented object manipulator is not visible when the orientation of the reoriented object manipulator is visually confusing or indistinct.

40. An article of manufacture comprising a program storage medium readable by a computer and embodying one or more instructions executable by the computer to perform a method for modifying a property of a graphic object in an object-oriented computer graphics drawing system, the method comprising:

(a) means for displaying a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements;

(b) means for displaying an object manipulator, comprised of a grip, on the graphic object, wherein:

(i) the object manipulator may be in two or more function states;

(ii) each function state enables the object manipulator to perform one or more discrete functions that modify one or more properties of the graphic object;

(c) means for activating the object manipulator;

(d) means for modifying the function state of the object manipulator; and

(e) means for modifying a property of the graphic object.

41. The article of manufacture of claim 40, wherein the function state is modified by pressing and releasing a control key.

42. The article of manufacture of claim 40, further comprising means for displaying a graphic image to graphically indicate the function state of the object manipulator.

43. An article of manufacture comprising a program storage medium readable by a computer and embodying one or more instructions executable by the computer to perform a method for displaying an object manipulator in an object-oriented computer graphics drawing system, the method comprising:

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means for displaying a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements;

means for displaying an object manipulator, comprised of a grip, on the graphic object;

means for activating the object manipulator; and

means for displaying a bitmap image at a cursor position if selecting the cursor position will result in an error condition when interacting with the object manipulator.

44.   An article of manufacture comprising a program storage medium readable by a computer and embodying one or more instructions executable by the computer to perform a method for displaying an object manipulator in an object-oriented computer graphics drawing system, the method comprising:

means for displaying a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements;

means for displaying an object manipulator, comprised of a grip, on the graphic object, a particular glyph shape of the object manipulator indicates an alignment of the graphic object with respect to one or more additional objects.

45.   An article of manufacture comprising a program storage medium readable by a computer and embodying one or more instructions executable by the computer to perform a method for displaying an object manipulator in an object-oriented computer graphics drawing system, the method comprising:

means for displaying a graphic object in a computer graphics drawing program, wherein the graphic object comprises one or more graphical elements;

means for displaying an object manipulator, comprised of a grip, on the graphic object, wherein the object manipulator is displayed in a translucent color, so the graphic object is visible behind the object manipulator.

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EVIDENCE APPENDIX

None

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RELATED PROCEEDINGS APPENDIX

None

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